



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,274	04/13/2005	Gert Andersson	2921-0148PUS1	5065
2292 7590 09/02/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER VARGOT, MATHEU'D				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
09/02/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/531,274

Applicant(s)

ANDERSSON ET AL.

Examiner

Mathieu D. Vargot

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 8/19/09
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al 6,091,537 (see col. 2, line 7 through col. 3, line 31 and Figs. 1 and 2). Sun et al -537 (see Figs. 1 and 2) teaches a method of making a compact movable structure for a light shaping unit—lens 12—by forming the lens from a material deposited (col. 3, lines 8-21) onto a substrate (72, 74, 76) or carrier and forming a micromechanical structure (30-34) adapted to move the lens from the carrier (see col. 2, lines 39-45), the applied reference essentially failing to explicitly teach that the lens is formed before the micromechanical structure is formed. As noted in the previous actions, albeit with respect to another reference, it is submitted quite obvious as to which of the elements—ie, either lens or micromechanical structure—is made first. Given that the prior art would be able to perform the formation of either component before the other, it is submitted to have been well within the skill level of the art to perform the formation of these components in whichever order desired. Sun et al -537 deposits the photoresist (polymeric) material that forms the lens and spinning would have been an obvious and conventional way to perform the deposition—see the sentence bridging columns 2 and 3 concerning the deposition of the spacer layer 70 through spin coating. Embossing to form microlenses is well known and would have been an obvious modification in lieu of the reflow shaping taught at col. 3, line 10. The

micromechanical structures are submitted to meet instant claim 5 and the exact manner in which they are made—ie, instant claim 6—would have been clearly obvious if they were to be etched. Etching would be a conventional way to implement (see col. 2, lines 44-45) these structures in the silicon substrate or carrier. Sun et al -537 (see Fig. 2) shows the formation of an opening from the bottom of the carrier in a direction toward the lens 12 to provide a light passage channel, the light emanating from a laser 65. Concerning instant claim 8, see column 3, lines 22-33. The light passage channel is clearly a cavity, while the employment of a waveguide or optical fiber to fulfill the function of the light passage is conventionally done in this art.

2.Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection. Applicant's comments concerning previously applied Rabarot et al are now moot since this reference has been replaced with Sun et al -537. Needless to say, newly applied Sun et al -537 teaches making the lens and the micromechanical element out of different materials, the lens being made from a polymeric photoresist deposited on the silicon carrier and the micromechanical elements being made from the silicon carrier itself. Hence, applicant's comments directed to what the previously applied reference lacked have been essentially shown in newly applied Sun et al -537.

3.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on 571 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
August 29, 2009

/Mathieu D. Vargot/
Primary Examiner, Art Unit 1791